

Amendment to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application:

1. (Currently Amended) A device comprising:  
  
a particle position constraining part formed of a dielectric material, having inner surfaces;  
  
an airflow producing part, producing an airflow within said inner surfaces to guide a particle within said inner surfaces;  
  
and  
  
a detector, which detects a charge of a charged particle in said particle position constraining part, and produces a signal indicative of a charge and a size of a particle.
2. (Original) A device as in claim 1, wherein said detector produces an output signal indicative of a charge of said particle, and a movement of said particle, and determines size of said particle from said movement of said particle.
3. (Original) A device as in claim 1, wherein said airflow producing part includes an air pump.
4. (Original) A device as in claim 1, wherein said particle position constraining part includes a capillary tube.

5. (Original) A device as in claim 1, wherein said detector includes a Faraday cage.

6. (Original) A device as in claim 5, wherein said detector includes a Faraday cage cylindrical electrode.

7. (Original) A device as in claim 5, further comprising a transistor, connected to said Faraday cage, and driven by an output of said Faraday cage to produce said signal.

8. (Original) A device as in claim 1, wherein said particle constraining part is a glass capillary.

9. (Original) A device as in claim 1, wherein said particle constraining part is a capillary having a diameter less than 10 mm.

10. (Currently Amended) A method, comprising:  
using airflow to guide a charged particle, having a charge greater than a specified amount, along a path defined by a dielectric material;

sensing a charge of the charged particle along the path  
from within the dielectric; and

producing a signal indicative of particle charge and  
particle size based on said sensing.

11. (Original) A method as in claim 10, wherein said  
producing comprises analyzing a signal produced by said sensing  
to determine a size of the particle.

12. (Currently Amended) A method as in claim 10, wherein  
said using comprises confining said charged particle within a  
dielectric capillary.

13. (Original) A method as in claim 10, wherein said using  
comprises confining said charged particle within a capillary  
having a diameter less than ten mm and formed of glass.

14. (Original) A method as in claim 10, wherein said  
sensing comprises using a Faraday cage to sense charge of this  
charged particle as a function of time.

15. (Original) A method as in claim 14 wherein said using a Faraday cage comprises using a cylindrical electrode Faraday cage.

16. (Original) A method, comprising:  
forcing a charged particle to travel through a tube formed of a dielectric material; and  
detecting a charge on said charged particle through said dielectric material.

17. (Original) A method as in claim 16, wherein said forcing comprises applying a known airflow to said charged particle.

18. (Original) A method as in claim 16, further comprising detecting a size of said charged particle based on a waveform detected by said detecting.

19. (Original) A method as in claim 16, wherein said dielectric capillary has a diameter less than one mm.

20. (Original) A method as in claim 19, wherein said dielectric capillary is formed of glass.

21. (Original) A method, comprising:

sliding a first smaller diameter tube of a dielectric material into a second, larger diameter tube which is a cylindrical sensing electrode;

forming a known airflow through said first smaller diameter tube, and causing charged particles to pass through said first smaller diameter tube; and

sensing passage of said charged particles using said second larger diameter tube, through said dielectric material.